

Bristle-thighed Curlew

Numenius tahitiensis

Class: Aves
Order: Charadriiformes

Review Status: Peer-reviewed

Version Date: 09 April 2019

Conservation Status

NatureServe:

Agency:

G Rank: G2

ADF&G: Species of Greatest Conservation Need

IUCN: Vulnerable

Audubon AK: Yellow

S Rank: S2B

USFWS: Bird of Conservation Concern

BLM: Sensitive

Final Rank		
Conservation category: V. Orange		
unknown status and either high biological vulnerability or high action need		
<u>Category</u>	<u>Range</u>	<u>Score</u>
Status	-20 to 20	0
Biological	-50 to 50	-22
Action	-40 to 40	12
Higher numerical scores denote greater concern		

Status - variables measure the trend in a taxon's population status or distribution. Higher status scores denote taxa with known declining trends. Status scores range from -20 (increasing) to 20 (decreasing).

Score

Population Trend in Alaska (-10 to 10)

0

Unknown (ASG 2019).

Distribution Trend in Alaska (-10 to 10)

0

Recent and historical trends are unknown. Although outside the scope of this question, suitability models for Alaska disagree as to whether the amount of suitable breeding habitat will increase or decrease in the future (Marcot et al. 2015; Thompson et al. 2016; Wauchope et al. 2017).

Distribution on wintering grounds is expected to decrease as a result of sea level rise (Engilis and Naughton 2004).

Status Total: 0

Biological - variables measure aspects of a taxon's distribution, abundance and life history. Higher biological scores suggest greater vulnerability to extirpation. Biological scores range from -50 (least vulnerable) to 50 (most vulnerable).

Score

Population Size in Alaska (-10 to 10)

-2

Estimated population size, including sub-adults, is 10,000 individuals (ASG 2019). There are thought to be fewer than 7,000 breeding adults in Alaska (Marks et al. 2002).

Range Size in Alaska (-10 to 10)

-2

Breeding is known from only two disjunct areas in Alaska: the north-central Seward Peninsula and the southern Nulato Hills on the Yukon-Kuskokwim Delta (Marks et al. 2002). Other small breeding

areas may exist, based on observations during the summer months at Cape Krusenstern (e.g. Gates et al. 2011), but no nests have been found. Overwinters on Pacific islands from the northwestern Hawaiian islands south to Fiji (Marks et al. 2002). Estimated breeding range is ~17,671 sq. km, based on summer range polygon from ACCS (2017a).

Population Concentration in Alaska (-10 to 10)

-6

Territorial when nesting (Jung 2014). During migration, bristle-thighed curlews typically stay in small flocks of fewer than ten individuals (Handel and Dau 1988; MacDonald and Wachtel 2000), though flocks of up to 33 individuals have been reported (Handel and Dau 1988). Based on observations, individuals stage near the coast, presumably along the length of the Yukon-Kuskokwim Delta from Chevak south to the Nushagak Peninsula (Handel and Dau 1988; MacDonald and Wachtel 2000; Smith et al. 2012). The remaining presumably stage on the Seward Peninsula (Handel and Dau 1988; Kessel 1989), though occasional migrants have been observed in southcoastal Alaska (Isleib and Kessel 1973) and the Aleutian Islands (Gibson and Byrd 2007). Given the small population size and restricted range, we assume that there are >25 but <250 staging areas in the state.

Reproductive Potential in Alaska

Age of First Reproduction (-5 to 5)

-3

Likely does not breed until at least 3 years of age (Marks et al. 2002).

Number of Young (-5 to 5)

1

Females usually lay one 4-egg clutch per year (Marks et al. 2002). Average clutch size for Alaska is 3.85 eggs \pm 0.37 SD (Marks et al. 2002).

Ecological Specialization in Alaska

Dietary (-5 to 5)

-5

During breeding, consumes berries (crowberries, cranberries, blueberries), flowers, and terrestrial invertebrates (spiders, beetles) (McCaffery 1996b; Marks et al. 2002; Jung 2014). Although bristle-thighed curlews are selective in the types of berries they eat (Jung 2014), they are nevertheless considered as opportunistic omnivores. The proportion of berries to invertebrates changes with availability (Jung 2014), and they appear capable of maintaining constant reproductive rates by prey switching when one food resource is low (McCaffery 1996b; Jung 2014).

Habitat (-5 to 5)

-5

Breed at low elevations in open tundra habitat (McCaffery and Peltola 1986; Jung et al. 2016). Habitats span a range of moisture regimes and vegetation types, and include dry lichen-graminoid meadows, wet sedge meadows, tussock-shrub, and shrub thickets up to 1.5 m high (McCaffery and Peltola 1986; Gill et al. 1990; McCaffery and Gill 1992; Marks et al. 2002; Jung et al. 2016). Habitat preferences differ between sites but are largely reflective of availability and distribution of food resources (McCaffery and Peltola 1986; Jung et al. 2016). Habitat during migration is poorly described, but individuals seem to move towards the coast (Handel and Dau 1988; Kessel 1989; Gibson and Byrd 2007).

Biological Total: -22

Action - variables measure current state of knowledge or extent of conservation efforts directed toward a given taxon. Higher action scores denote greater information needs due of lack of knowledge or conservation action. Action scores range from -40 (lower needs) to 40 (greater needs).

Score

Management Plans and Regulations in Alaska (-10 to 10)

-10

Protected under the Migratory Bird Treaty Act (MBTA 1918). Closed to subsistence and recreational harvest (AMBCC 2018).

<i>Knowledge of Distribution and Habitat in Alaska (-10 to 10)</i>	2
Breeding range is somewhat known, but individuals seen north of the Seward Peninsula during breeding season may indicate additional breeding areas that have not yet been confirmed (Marks et al. 2002; Gates et al. 2011). In addition, little is known about staging areas and migratory routes (Handel and Dau 1988; MacDonald and Wachtel 2000), though research on these topics is currently underway (Tibbitts et al. 2013). Nesting habitat have been described in the Nulato Hills (McCaffery and Peltola 1986; Jung et al. 2016) and on the Seward Peninsula (Kessel 1989; Gill et al. 1990).	
<i>Knowledge of Population Trends in Alaska (-10 to 10)</i>	10
While sporadic surveys have been conducted on the Seward Peninsula and the Yukon-Kuskokwim Delta, this species is not currently monitored.	
<i>Knowledge of Factors Limiting Populations in Alaska (-10 to 10)</i>	10
Very little is known about the population dynamics of bristle-thighed curlews and the factors that limit its population. Preliminary data suggest high rates of adult survivorship (Marks 1992; Marks and Redmond 1996; Marks et al. 2002). Nest predation is thought to be an important mortality factor (McCaffery and Gill 1992). Additional data are needed to determine the effects of food availability on reproductive rates (McCaffery 1996b; Jung 2014) and how climate change will affect breeding phenology and the timing of peak insect availability (Jung 2014). On wintering grounds, distribution may be limited by introduced predators and habitat alteration, and is expected to be negatively affected by sea-level rise (Marks and Redmond 1994; Engilis and Naughton 2004; Sonsthagen et al. 2015).	
Action Total:	12

Supplemental Information - variables do not receive numerical scores. Instead, they are used to sort taxa to answer specific biological or management questions.

Harvest:	None or Prohibited
Seasonal Occurrence:	Breeding
Taxonomic Significance:	Monotypic species
% Global Range in Alaska:	>10%
% Global Population in Alaska:	≥75%
Peripheral:	No

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